sented by 11·11 years, and suggested also a longer period of 55·5 years. He also pointed out that there were considerable deviations from the mean period of 11·11 years, and that the difference in time between two maxima was shortest when their intensities were most marked. He clearly showed the resemblance between Sun-spot curves and those of the variation of light of stars. He collected much evidence connecting the manifestations of auroræ and other luminous phenomena with solar disturbances. Professor Wolf remained at Berne until 1864, when he returned to Zurich as Professor of Astronomy in the Polytechnic, and Director of the Observatory. Dr. Wolf's other contributions to astronomy embrace both pure mathematics and astronomical literature. In 1852 he published the first edition of his *Mathematics, Physics, Geodesy, and Astronomy*, the sixth edition of which was brought out very shortly before his death. In 1858–1861 he wrote four volumes of the *Biographies of Swiss Men of Science*. Two volumes of the *Handbuch der Mathematik* appeared in the years succeeding 1869, followed in 1893 by his *Handbuch der Astronomie, ihrer Geschichte und Litteratur*; his *History of Recent Astronomy* was published in 1877. The *Astronomische Mittheilungen* have continued from 1856 to the present date, and contain descriptions of instruments and scientific relics in the Zurich Observatory, and histories of Swiss mathematicians, physicists and astronomers, as well as important astronomical communications.

Professor Wolf was elected a Foreign Associate of this Society 1864 November 11.

Fabian Jacob, Baron Wrede of Elima, was born 1802 October 9, and died 1893 May 22. The Barony dates from 1605, when an ancestor saved the life of the King of Sweden, at the expense of his own, at the Battle of Kirkholm. The late Baron showed almost in infancy a decided preference for mechanical and scientific pursuits, but his studies in this direction were interrupted for several years by a military education. After completing this successfully, however, he received a staff appointment at Stockholm, and was again free to study science, though at the expense of some banter from his military companions, to whom the spectacle of a "grown man *reading* in the middle of the day" was quite novel. He was fortunate enough to make the acquaintance of the chemist Berzelius, who delivered a course of lectures at Stockholm in 1820, and a firm friendship sprang up between the two which was only terminated by the death of Berzelius. He was fond of music and literature, and thoroughly enjoyed the opportunities he had in Stockholm of developing these tastes. He was a Fellow, and at one time President, of the Royal Musical Academy of Sweden, and he was privileged to hear read before publication many of the works of his cousin, Miss Bremer, the famous Swedish novelist. But he did not neglect his military career, and his scientific attain-

ments were devoted to the improvement of artillery with very great success. In fact, he revolutionised the service—finding it quite old-fashioned, and leaving it in a state of the highest efficiency. In 1859 he was made General of the Ordnance and Chief of the Artillery; in 1867 a lieutenant-general; and he left the army in 1875.

Of his purely scientific work a paper on the absorption of light, published in 1834, is perhaps the most noteworthy. He was elected to the Royal Swedish Academy of Sciences in 1835, and ultimately became president, delivering an address on his retirement from this office in 1847 on the present and future of nineteenth-century science, which attracted much attention. As President of the Academy, he was elected an Associate of this Society in 1845, but contributed no papers to the Society. His work was chiefly spectroscopic.

From 1870 to 1879 he represented Sweden at the International Metrical Congress at Paris. He was very active, as a member of the Upper House in the Swedish Diet, in procuring the reform of the weights and measures and the adoption of the metric system. He was a member of the Association Géodésique Internationale. In 1845 he was at the head of a commission for measuring a part of the meridian in Lapland.